

Clade	Haplotype	Position														Frequency	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14		
A	1	C	C	C	G	C	G	C	G	C	G	A	T	G	T	C	1
	2	C	C	C	G	C	G	A	T	G	A	G	C	C	C	C	16
	3	C	C	C	G	C	G	C	G	A	T	G	A	G	C	C	1
	4	C	C	C	A	T	G	T	C	G	A	T	G	T	C	T	1
	5	C	C	C	A	T	G	T	C	G	A	T	G	T	C	T	9
B	6	C	C	C	A	T	G	T	C	G	A	T	G	T	C	T	1
	7	C	C	C	A	T	G	T	C	G	A	T	G	T	C	T	1
	8	C	C	C	A	T	G	T	C	G	A	T	G	T	C	T	1
	9	C	C	C	A	T	G	T	C	G	A	T	G	T	C	T	2
	10	C	C	C	A	T	G	T	C	G	A	T	G	T	C	T	2
	11	C	C	C	A	T	G	T	C	G	A	T	G	T	C	T	7
	12	G	C	C	A	T	G	C	C	G	G	T	A	G	C	T	2
	13	G	C	A	A	T	G	C	C	G	G	T	A	G	C	T	1
	14	G	T	C	A	T	G	C	C	G	G	T	A	G	C	T	1

FIGURE 1

Clade	Haplotype	837	1940	2313	2973	3063	3402	3514	3600	4054	4946	5329	5515	6118	6196	Frequency
A	1	C	G	A	C	G	G	G	T	T	T	G	T	A	G	18
	2	C	A	A	C	G	G	G	T	T	T	G	T	A	G	1
	3	C	G	A	C	G	G	A	T	T	T	G	T	A	G	1
	4	C	G	A	C	G	G	G	C	T	T	A	T	A	G	1
	5	G	G	A	C	G	G	G	T	T	T	G	T	G	G	8
C	6	C	G	A	T	A	C	G	T	C	C	G	C	A	C	16
	7	C	G	C	T	A	C	G	T	C	C	G	C	A	C	1

FIGURE 2

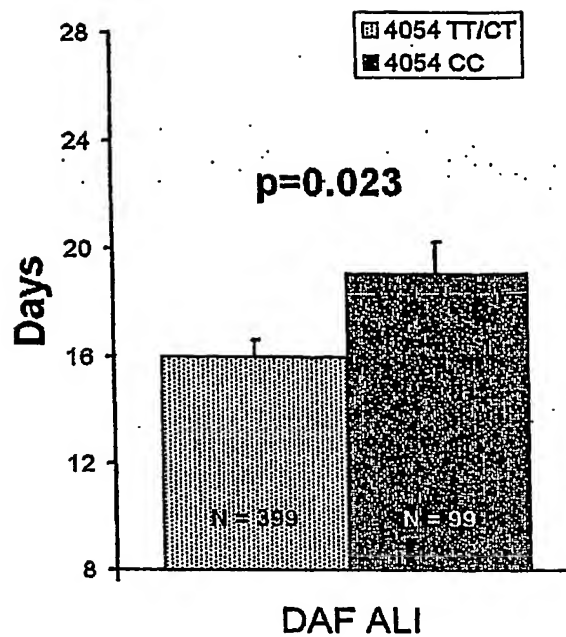


FIGURE 3A

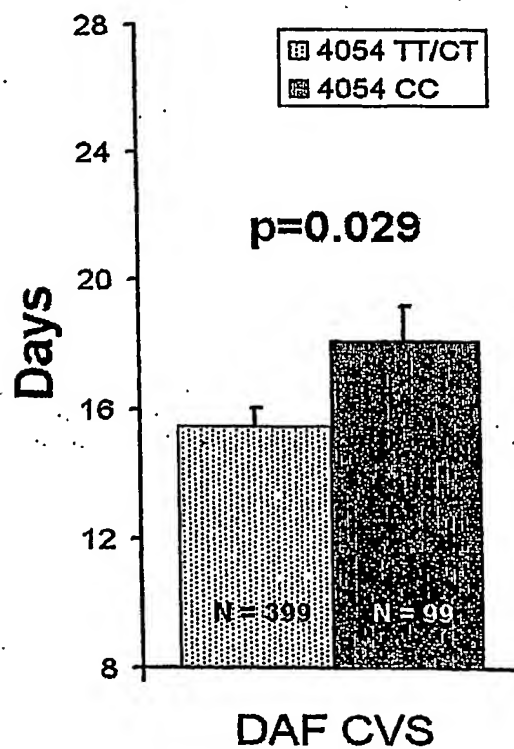


FIGURE 3B

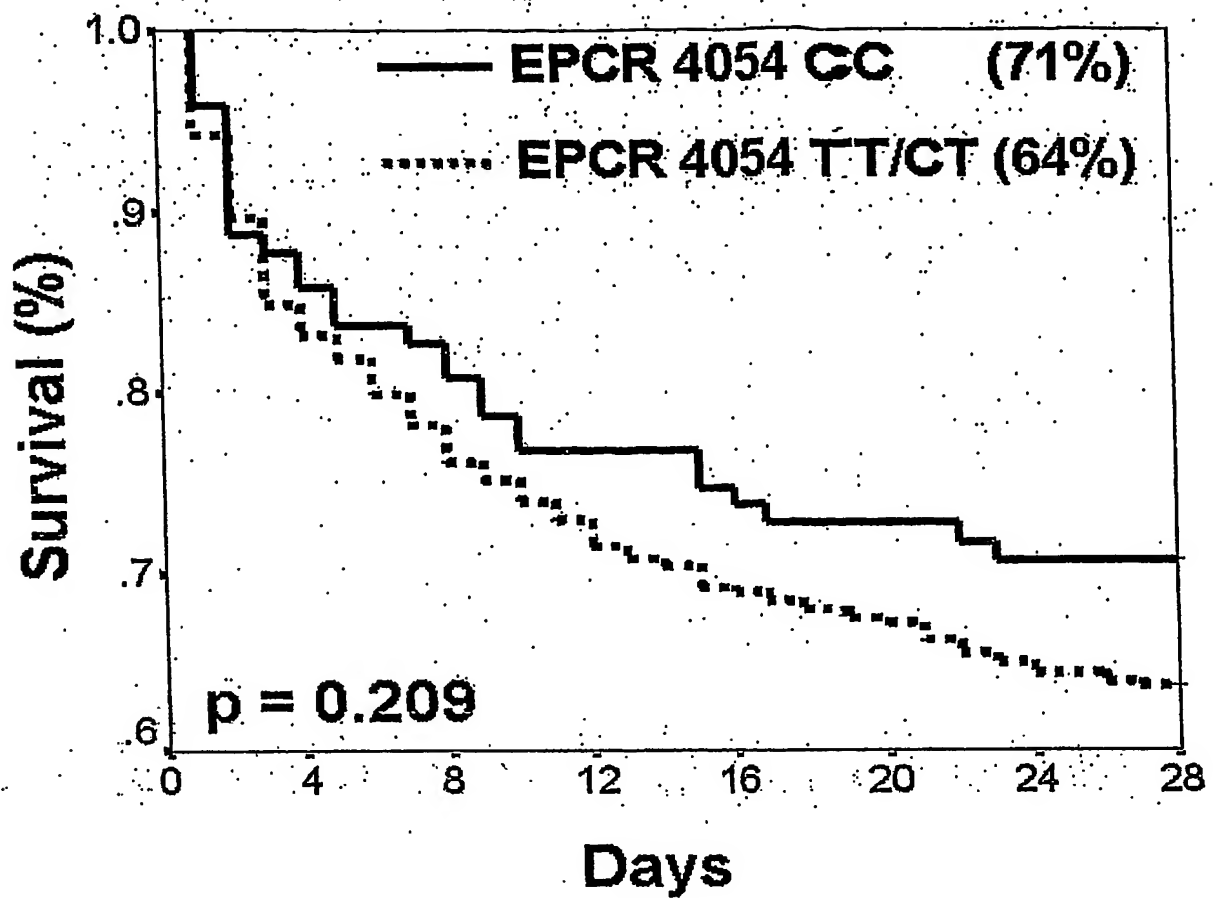


FIGURE 4

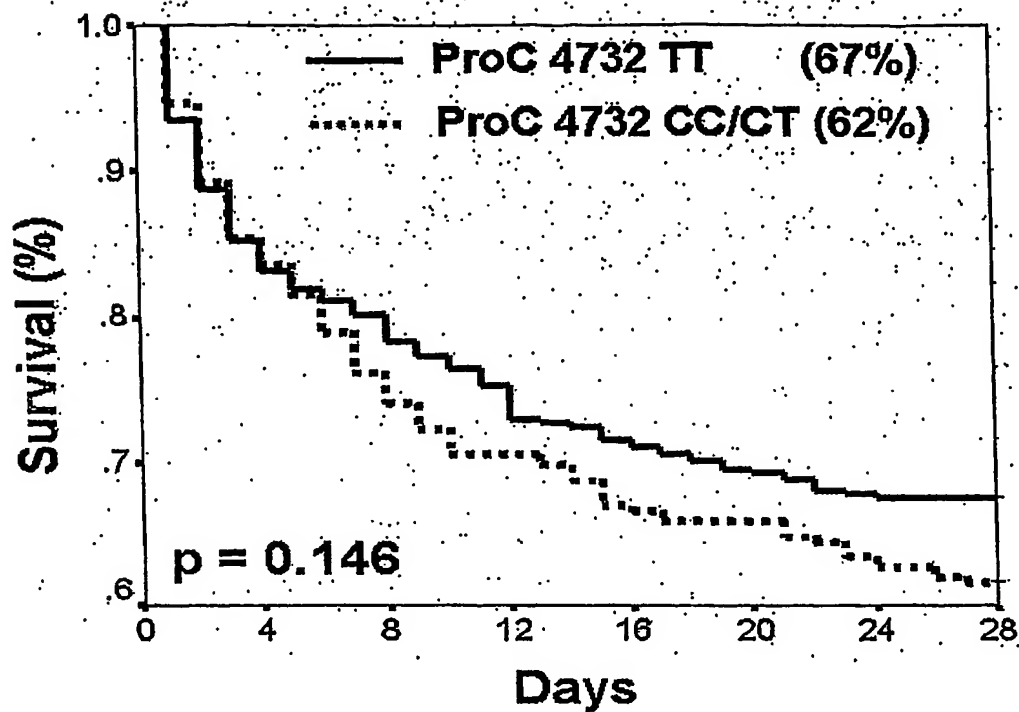


FIGURE 5A

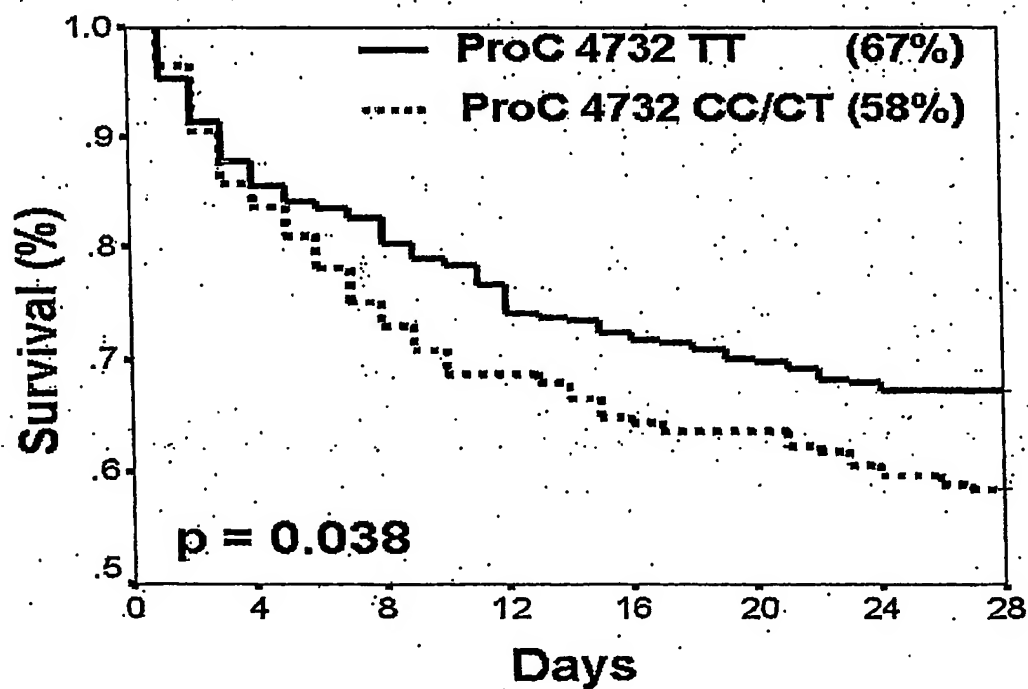


FIGURE 5B

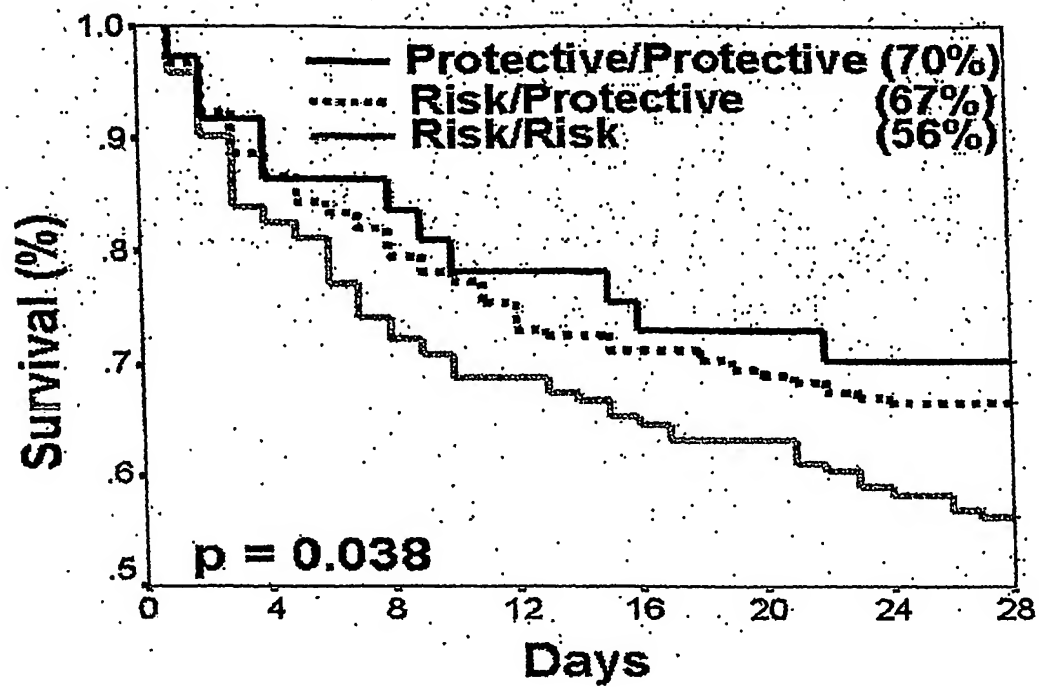


FIGURE 6A

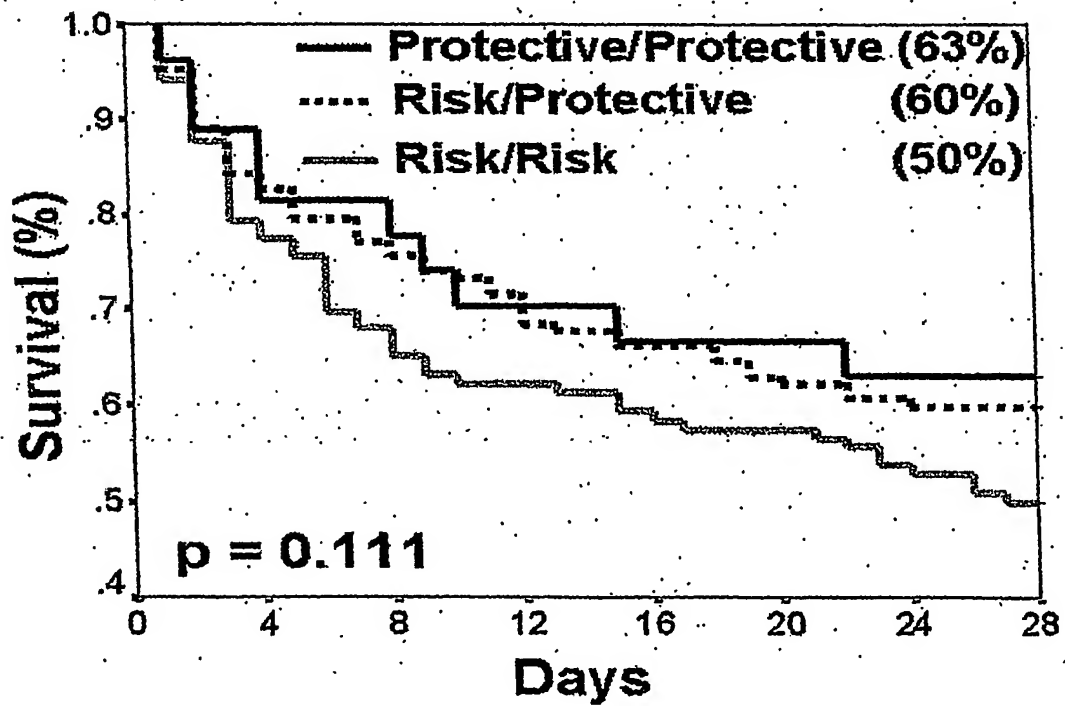
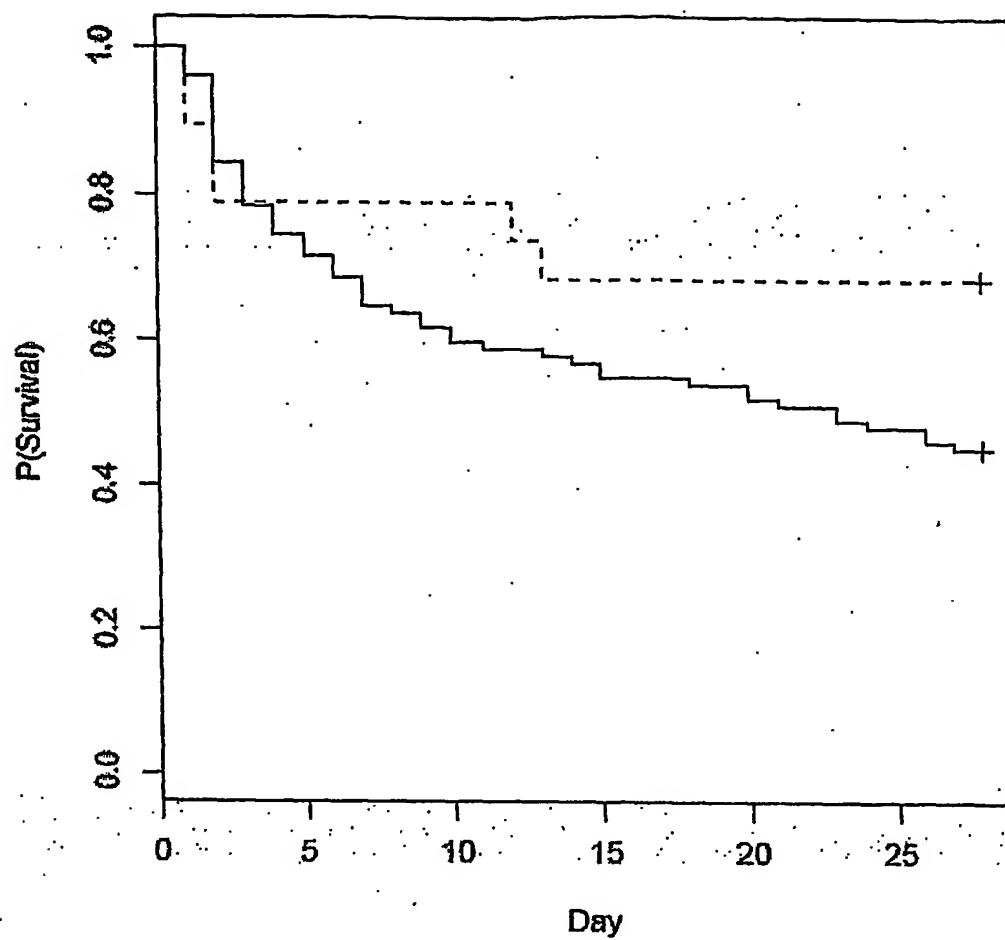


FIGURE 6B

**FIGURE 7**

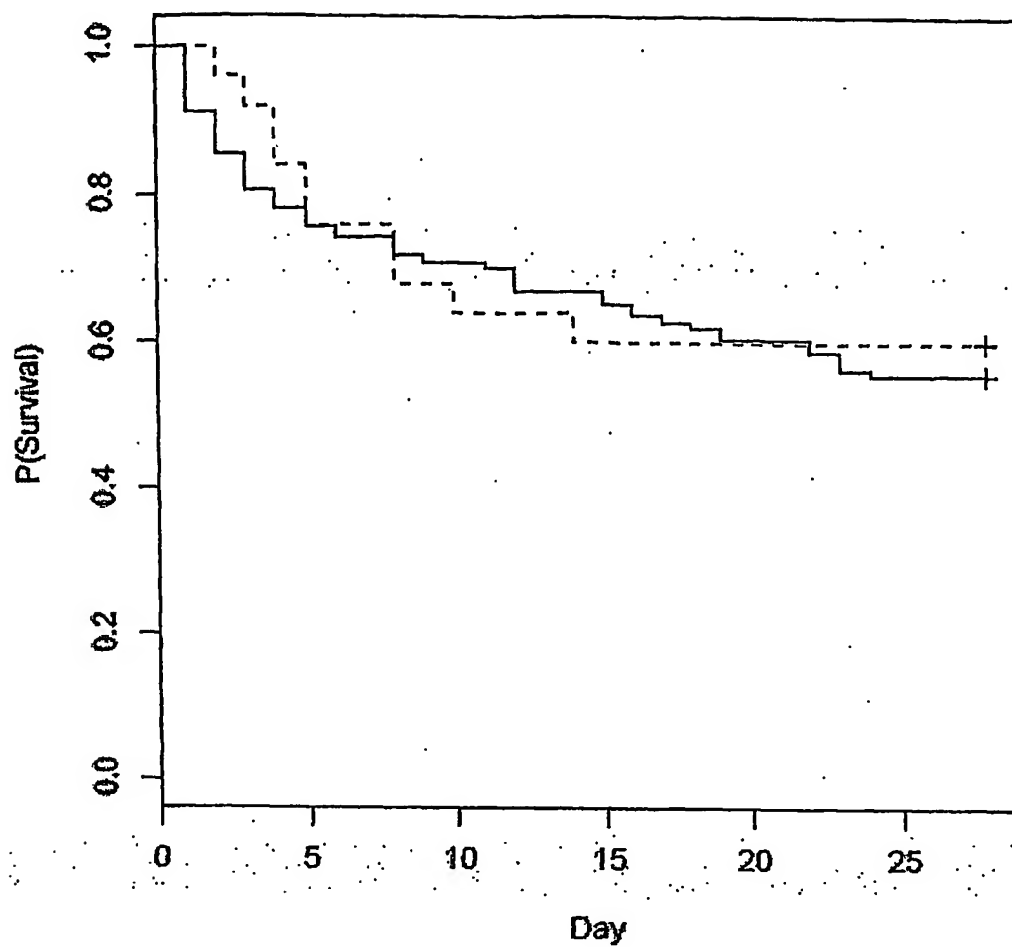
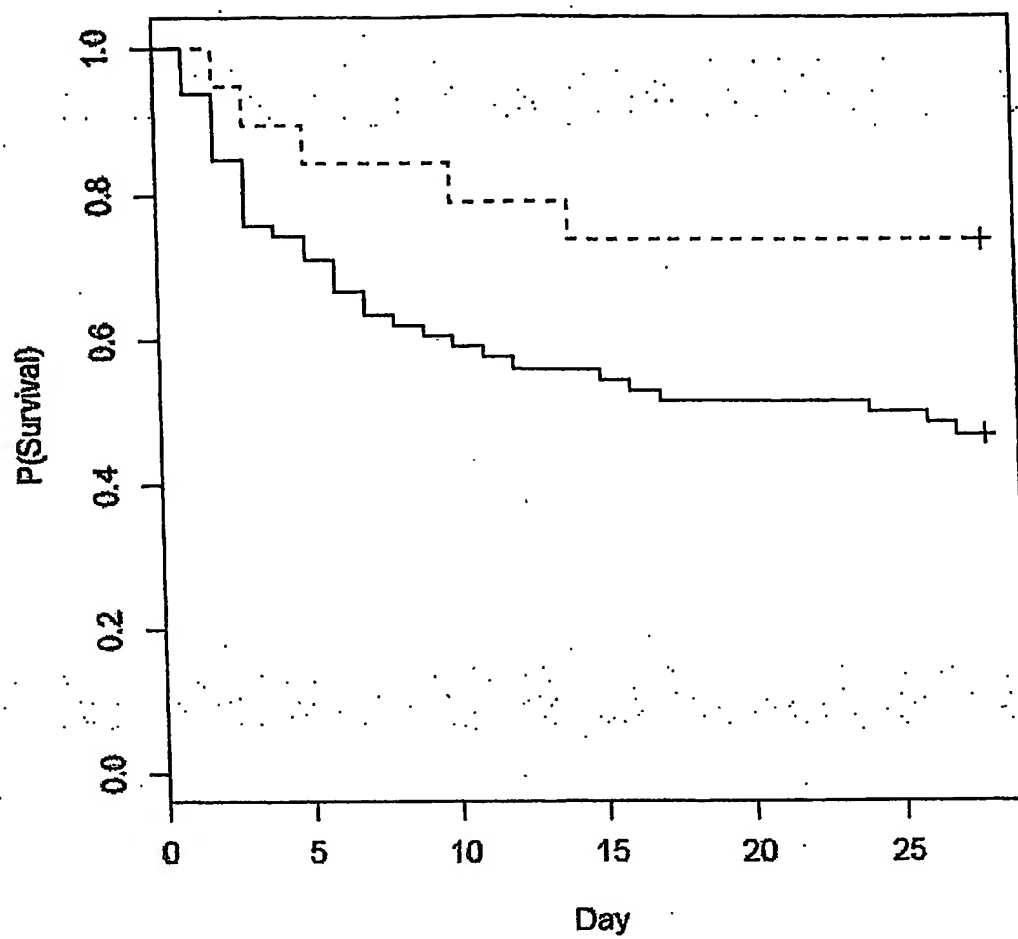
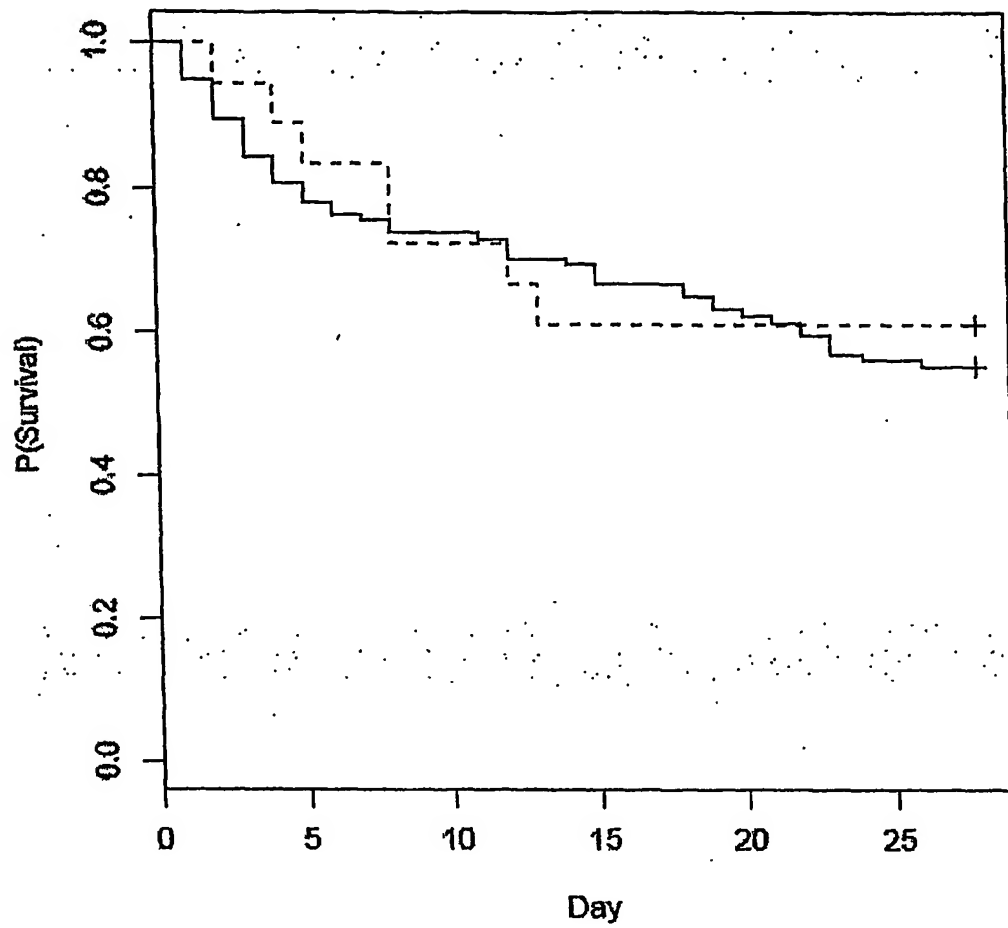


FIGURE 8



**FIGURE 9**

**FIGURE 10**

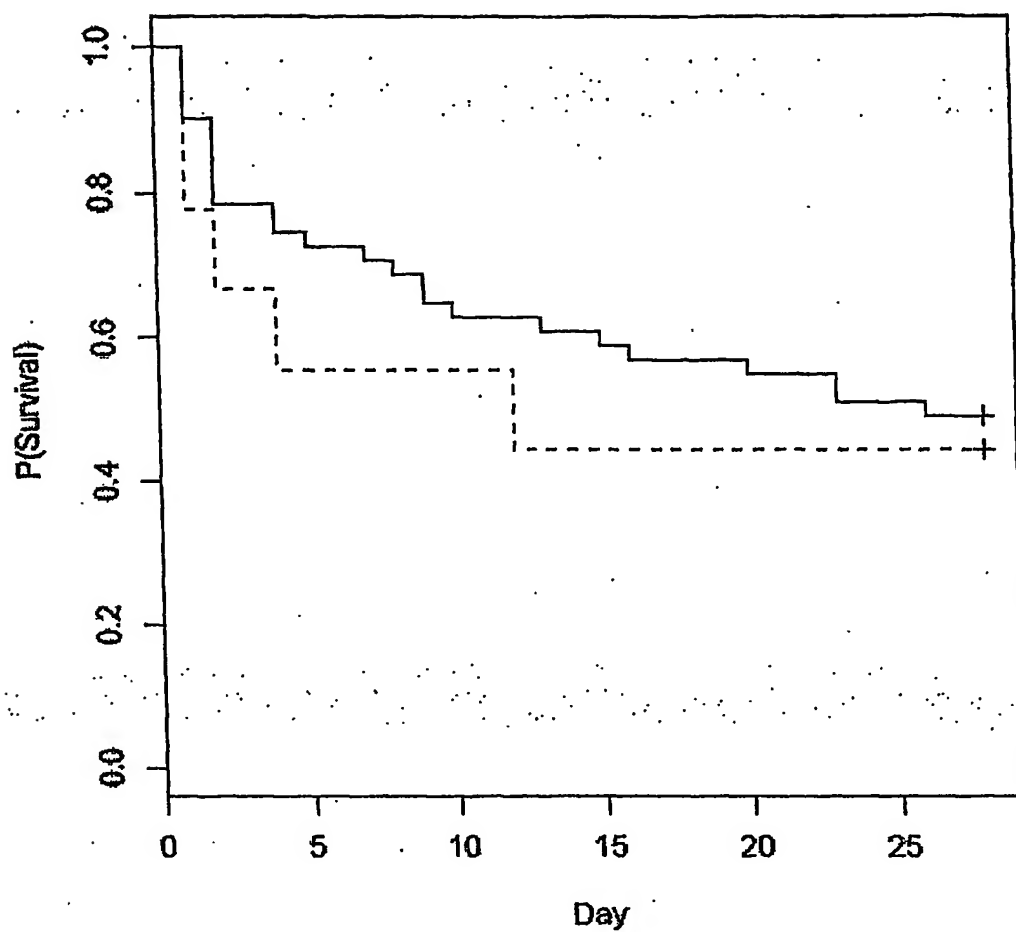
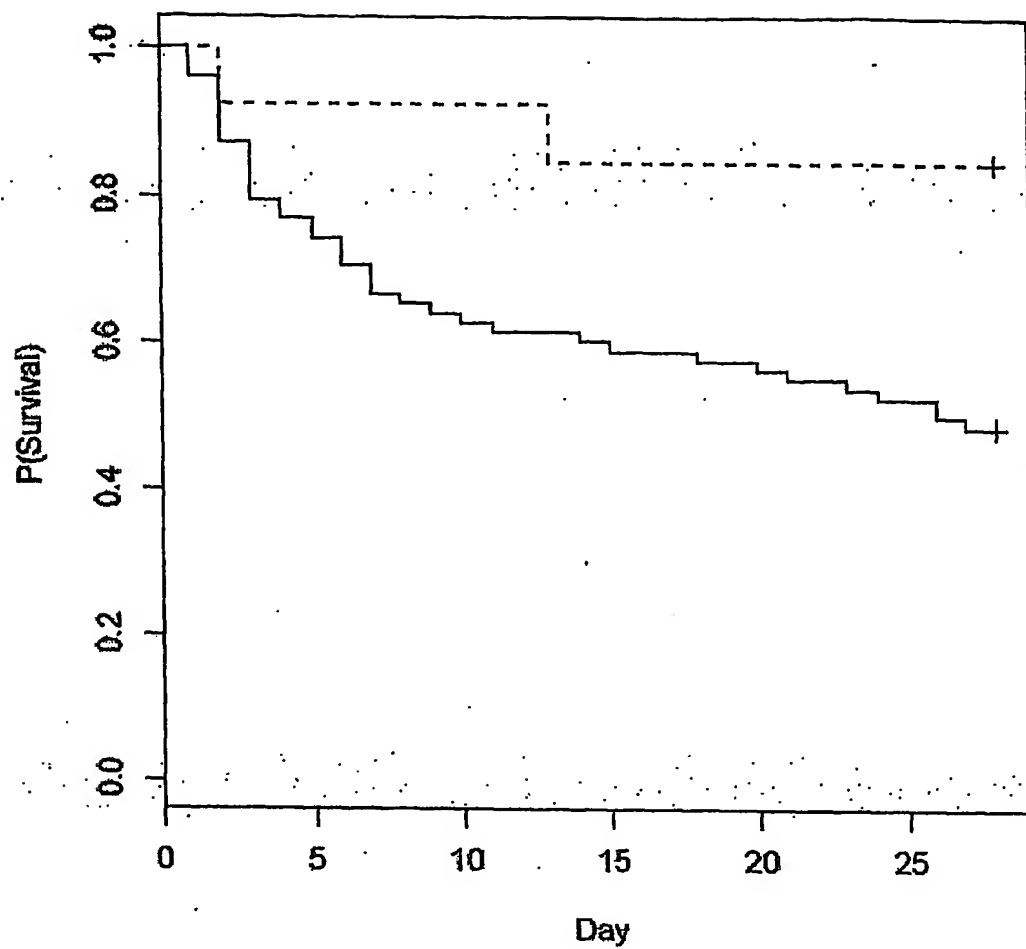
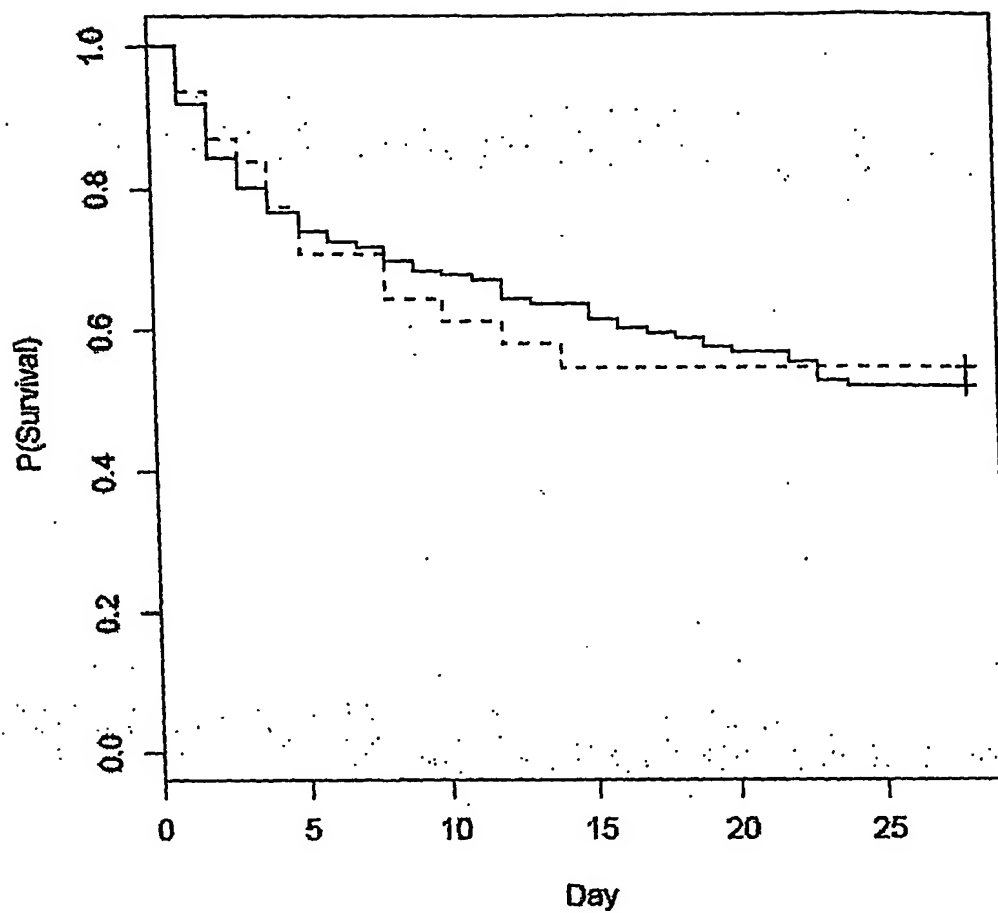


FIGURE 11

**FIGURE 12**

**FIGURE 13**

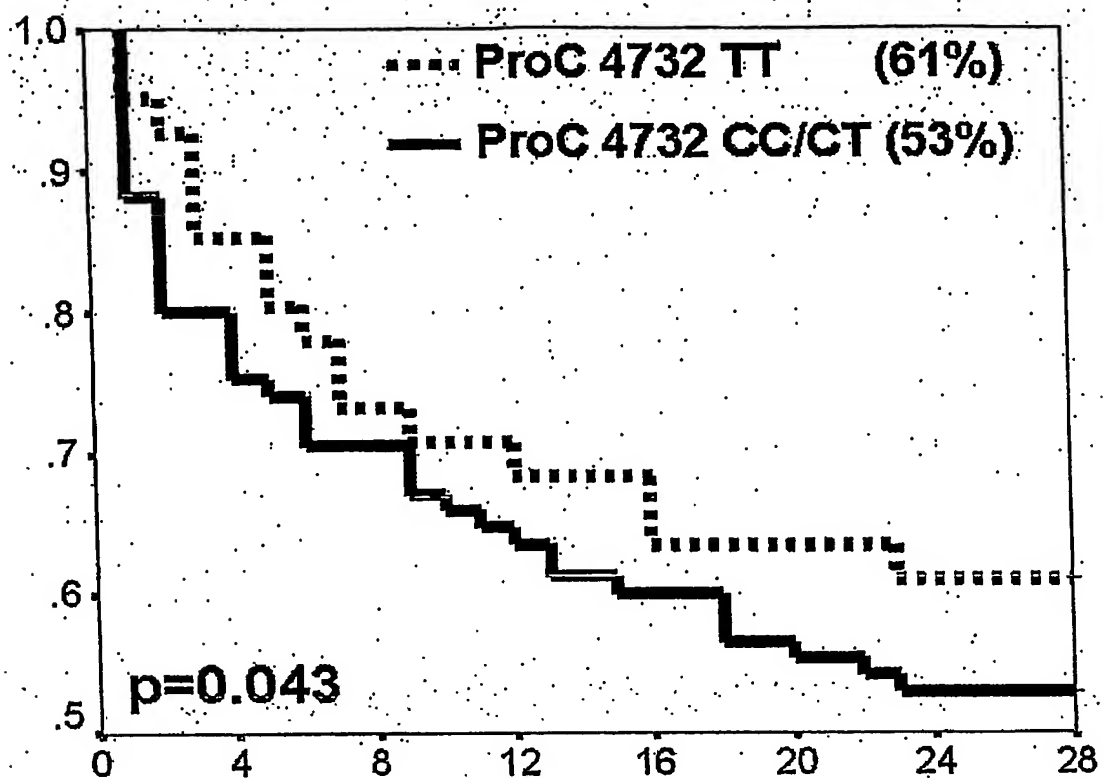
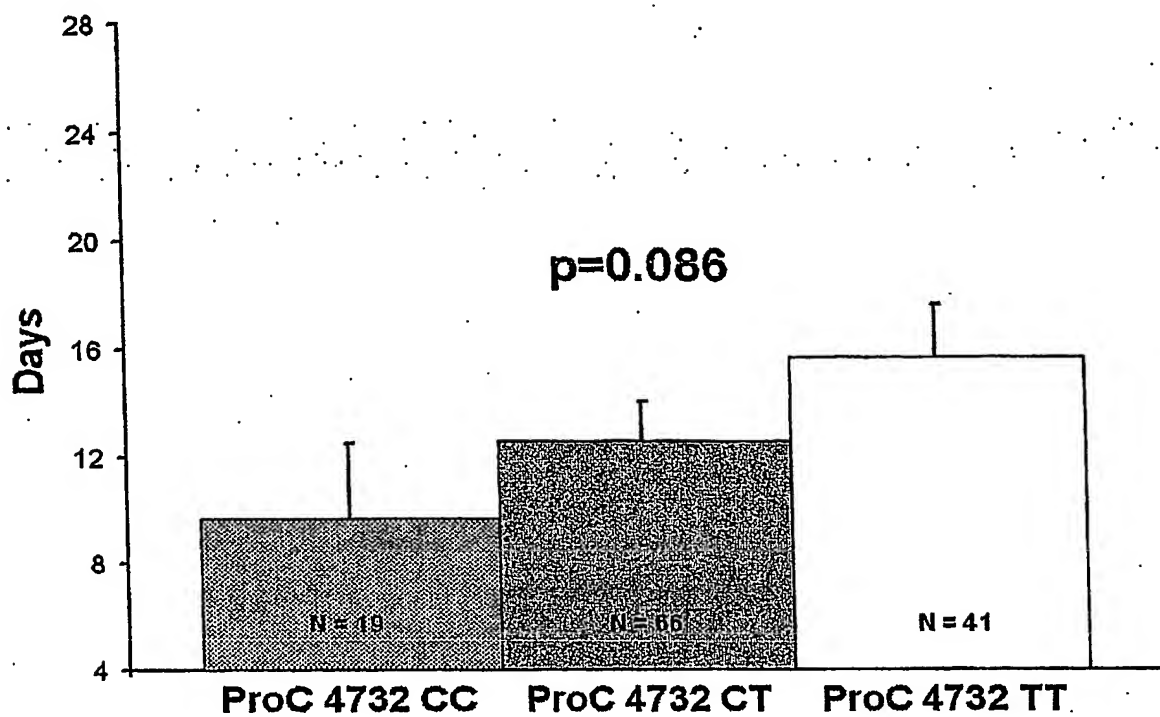


FIGURE 14

**FIGURE 15**

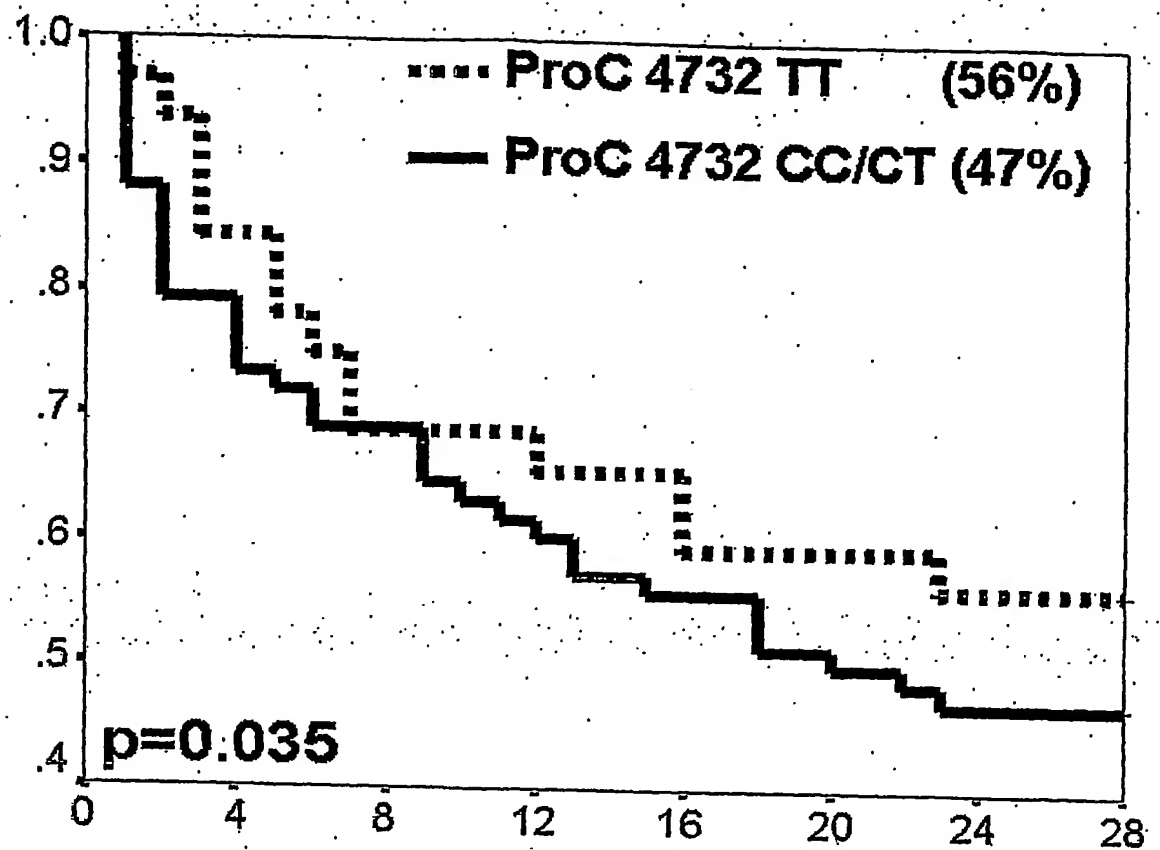


FIGURE 16



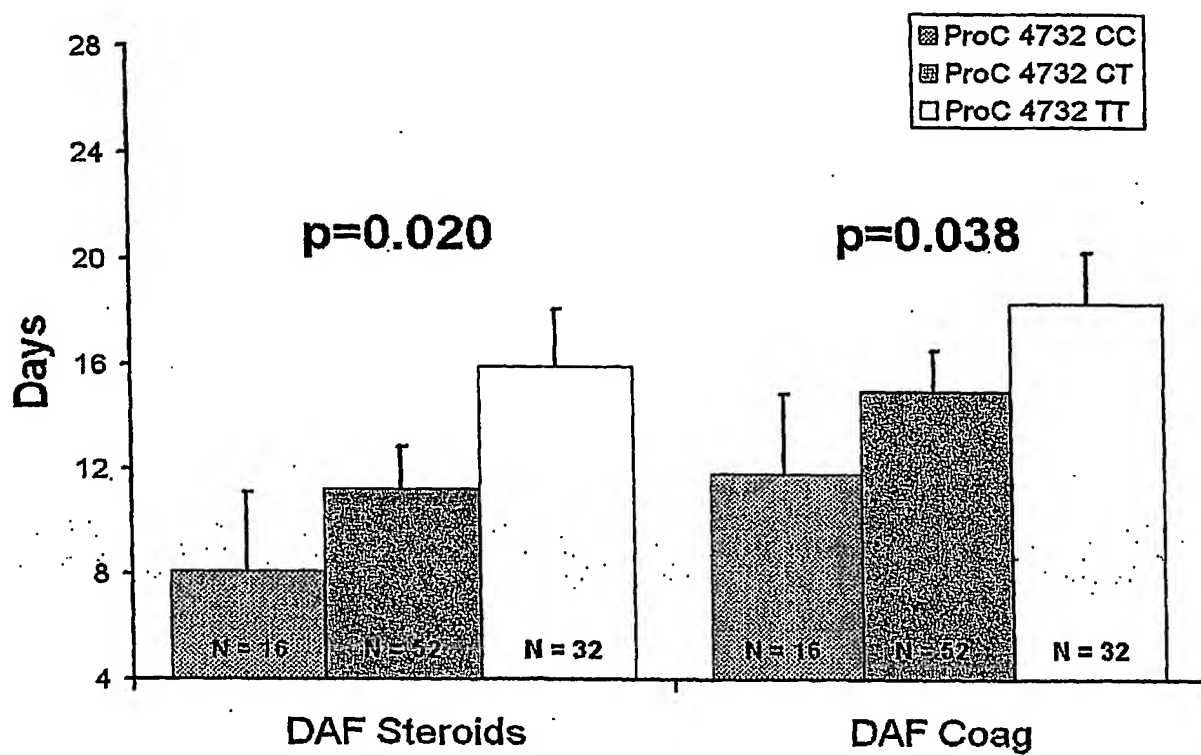


FIGURE 17

**This Page is Inserted by IFW Indexing and Scanning  
Operations and is not part of the Official Record**

**BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ BLACK BORDERS
- ☐ IMAGE CUT OFF AT TOP, BOTTOM OR SIDES
- ☒ FADED TEXT OR DRAWING
- ☐ BLURRED OR ILLEGIBLE TEXT OR DRAWING
- ☐ SKEWED/SLANTED IMAGES
- ☐ COLOR OR BLACK AND WHITE PHOTOGRAPHS
- ☐ GRAY SCALE DOCUMENTS
- ☒ LINES OR MARKS ON ORIGINAL DOCUMENT
- ☐ REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY
- ☒ OTHER: \_\_\_\_\_

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.**